

REDROW HOMES LTD

Land at Pollards Nursery,
Lake Lane, Barnham
West Sussex

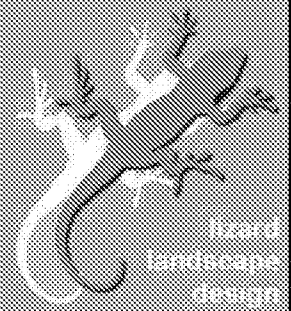
Preliminary Ecological Appraisal

- Extended Phase 1 Habitat Survey
- Protected Species Assessment

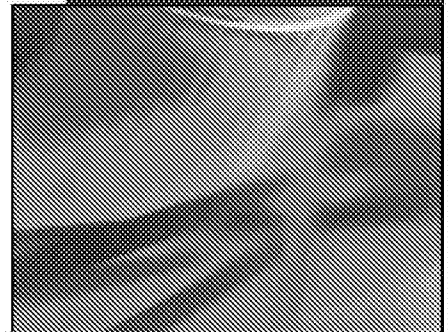
Approved By: Mark Vivian
Signed:
Position: Technical Director -Ecology
Date: 26th January 2016

January 2016 – Planning Issue

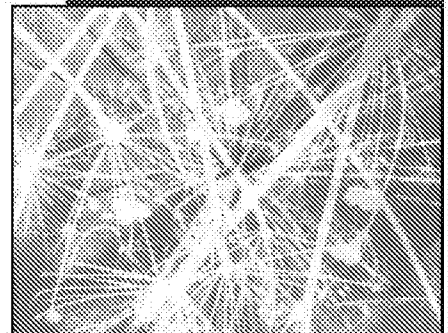
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Landscape Architecture



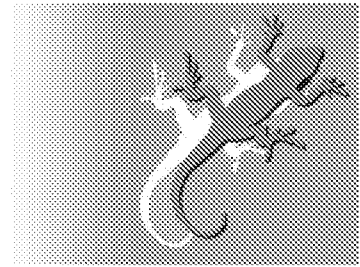
Environmental Design



Landscape Planning

Lizard Landscape Design

Lizard Landscape Design and Ecology



CONTENTS

	PAGE
SUMMARY	01
1.0 INTRODUCTION	02
2.0 SCOPE OF THE SURVEY	03
3.0 METHODOLOGY	04
4.0 RESULTS	05
5.0 EVALUATION	07
6.0 HABITAT ENHANCEMENTS	09

FIGURES

Figure No. 01 – Site Habitat Plan

TABLES

Table No. 01 – Target Notes

Table No. 02 – Species List

APPENDICES

Appendix No. 01 – Preliminary Ecological Appraisal – Site Photographs

SUMMARY

Redrow Homes Ltd has commissioned Lizard Landscape Design and Ecology to undertake a Preliminary Ecological Appraisal of a small patch of land by the entrance of Pollards Nursery Lake Lane, Barnham, West Sussex (*Grid Reference: SU967046 - hereafter referred to as the 'site'*). The area contains the reception / office building that administers the existing business on-site. A Preliminary Ecological Appraisal (*PEA*) was undertaken on the 11th January 2016 to appraise the potential ecological constraints associated with the proposed development. The field survey data and analysis contained within this report was undertaken and prepared by Mark Vivian (*BSc MSc MCIEEM; Technical Director of Ecology; Lizard Landscape Design and Ecology; Natural England Bat Licence Holder for Bats, GCN and Dormice*).

The Preliminary Ecological Appraisal survey has identified four types of habitat within the site: 1) Amenity Grassland; 2) Hard standing; 3) Building; and 4) Mature, Linear, Coniferous Tree lines. The mosaic of habitat represented within the site boundary has been assessed to possess '*negligible*' ecological value. The site has been divided into two sections which are separated by the existing hard standing track way however neither differ markedly in character. The only potential ecological constraint that has been identified has been the potential for breeding birds within the mature, coniferous tree lines located at *TN01; TN02; & TN03; Figure No. 1 – Site Habitat Plan*.

The vegetated areas of the site had a uniform, artificial character, with the amenity grassland being dominated by perennial rye-grass and the tree lines being dominated by western red-cedar. The mature, coniferous tree lines that demarcate three of the four boundaries of the site offer more in terms of ecological potential however these too were somewhat homogenous. These features have been identified as potential sites for bird nests as the dense canopy provides ample space for taxa such as passerines to build nests. In fact, territorial behaviour was observed by robin with two males singing then confronting each other within the northern tree line. It is recommended to retain the tree lines with the design of the project where possible. If this is not possible, vegetation clearance should take place outside of the bird breeding season (*March-August inclusive*).

The building on-site provides very limited bat roost potential and it is considered highly unlikely that bats roost within the premises. In addition, the potential for birds to nest within the building is also believed to be '*negligible*' however the roof could not be observed. A flat roof can provide an optimal nesting location for multiple species of bird so this should be checked at the earliest possible convenience.

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LAND AT POLLARDS NURSERY, LAKE LANE, BARNHAM, WEST SUSSEX

PRELIMINARY ECOLOGICAL APPRAISAL REPORT

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1.0 INTRODUCTION

- 1.1 Redrow Homes Ltd has commissioned Lizard Landscape Design and Ecology to undertake a Preliminary Ecological Appraisal of a small patch of land by the entrance to Pollards Nursery Lake Lane, Barnham, West Sussex (*Grid Reference: SU967046 - hereafter referred to as the 'site'*). The area contains the reception / office building that administers the existing business on-site.
- 1.2 A Preliminary Ecological Appraisal (PEA) was undertaken on the 11th January 2016 to appraise the potential ecological constraints associated with the proposed development. The PEA was comprised of a baseline survey conforming broadly to the JNCC Phase 1 Habitat Survey protocol to identify the existing habitats. In addition a Protected Species Assessment was undertaken to identify potential for European and nationally protected, or otherwise notable, species within and adjacent to the site.
- 1.3 The field survey data and analysis contained within this report was undertaken and prepared by Mark Vivian (*BSc MSc MCIEEM; Technical Director of Ecology; Lizard Landscape Design and Ecology; Natural England Bat Licence Holder for Bats, GCN and Dormice*).

Site Information

- 1.4 The site is located adjacent to the entrance of the existing Eric Wall / Pollards Nursery grounds. The development area measures less than 0.30 hectares at an altitude of approximately 8.00 metres above sea-level. The site is within private ownership and permission has been sought to access the site. The site contains the reception / main office building; hardstanding car park areas; amenity grassland; and mature, coniferous tree lines.
- 1.5 The development proposals split the red line boundary to either side of the existing access track connecting the office building with the main site access route. The parcel to the north of the track contains well-maintained amenity grassland and mature, linear coniferous tree lines along the northern and western borders. The parcel to the south contains the reception / office building; amenity grassland; scattered coniferous trees; and linear mature, coniferous trees. There are no waterbodies on site however a large reservoir covering approximately 680.00 metres² is located immediately south of the site area.

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Surrounding Landscape

- 1.6 The site is located close to the centre of the Barnham, a village that is set within a landscape dominated by agricultural usages. There is a moderate amount of woodland located within the confines of Barnham with a small patch (*c. 1.00 hectare*) of *Ancient Woodland* located 335.00 metres north-west of the site at *Nanny Copse*. *Nanny Copse* also contains further sections of deciduous woodland measuring approximately 3.65 hectares in total. The eastern section of Barnham, where the site is located, exhibits a more highly wooded character than the western section. This contrasts starkly against the overwhelmingly dominant agricultural landscape within which the village is set.

Development Proposals

- 1.7 The development proposals consist of the construction of seven new residential units on the site. This survey has been undertaken on the assumption that development proposals would incorporate a large percentage of the available site area; to include associated residential properties; hard standing and amenity / garden areas.

2.0 SCOPE OF THE SURVEY

- 2.1 The aim of the Preliminary Ecological Appraisal Survey has been:
- *To identify and display the main habitat types and plant communities;*
 - *To provide a species list for the major habitats;*
 - *To identify habitats with potential for protected species;*
 - *To provide recommendations for surveys of protected species and / or ecological enhancement / compensation.*
- 2.2 This report establishes the potential ecological resource within the site and outlines where any ecological constraints may occur.

3.0 METHODOLOGY

- 3.1 A Preliminary Ecological Appraisal was undertaken on 11th January 2016 and the site subjected to a Phase 1 Habitat Survey using guidelines set out in the *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit (JNCC, 2003)*. A Site Habitat Plan was compiled that is exhibited in *Figure No. 01*; target note denoting features of interest were taken and have been displayed in *Table No. 01*; and a floral audit was compiled for the whole site that is displayed in *Table No. 02*.
- 3.2 Habitats within the site were classified and the presence, or potential presence, of certain protected and / or notable species of flora and fauna were identified. A summary description of the habitat within the site following the Phase 1 Habitat Survey methodology is presented in Section 4.0.
- 3.3 Due to the field survey consisting of only one site visit certain species, particularly some of the flowering plants, may not have been visible or may have been otherwise inconspicuous at the time of survey and hence overlooked. These are accepted constraints associated with the standard Phase 1 Habitat Survey methodology.
- 3.4 Habitats within and immediately adjacent to the site area were assessed for their potential for uncommon and protected fauna including mammals, birds, reptiles and amphibians. This involved identifying features which may be used by protected species, potential foraging areas and other signs of use. Stones, dead wood and rubble were turned over and any dug holes studied for recent activity by mammals. Water bodies were recorded wherever possible within 500.0 metres of the proposed development.
- 3.5 The results are summarised and accompanied in large part by photographic evidence contained in *Appendix No.01 – Site Photographs*. Recommendations for further investigation and survey are made in the following report.

4.0 RESULTS

4.1 Desk Study – Background information

Designated Sites and Habitats

- 4.1.1 The following section outlines the ecological context of the development site, describing any designated nature conservation sites in the vicinity of the development site. The following designated sites and habitats are not necessarily representative of the existing site ecology but are indicative of the ecological context of the surrounding area; a factor that may be important when assessing the presence / absence potential of certain species groups.

Statutory Protected Sites

- 4.1.2 The site is not located within any statutory protected area nor are there any statutory protected areas within 2.0 kilometres of the development site. The nearest designated area is *The South Downs National Park*; located 2.6 kilometres north of the site. The South Downs are the newest National Park having been officially designated in April 2010. The area designated measures approximately 1600km² and has been classified because of the uniquely biodiverse landscape that it represents, as evidenced by the 86 no. *Sites of Special Scientific Interest (SSSI)* which lie within its boundary. The purpose of National Parks is to conserve and enhance natural beauty, wildlife and cultural heritage in addition to promoting understanding and enjoyment of the special qualities of National Parks by the public. The scale of the proposed development would render any potential conflict negligible.

Non-Statutory Protected Sites

- 4.1.3 *Sites of Nature Conservation Interest (SNCI)* are non-statutory designations given to areas of high conservation value locally. Despite being non-statutory, SNCIs are recognised by local planning authorities in their policies and plans. There are no SNCIs located within 2.0 kilometres of the development site and the scale of the development renders this potential constraint '*negligible*'.

UK Priority Habitats

- 4.1.4 Within 2.0 kilometres of the site there are UK Priority Habitats of deciduous woodland; woodpasture and parkland; traditional orchard; and coastal and floodplain grazing marsh. The development proposals however do not propose to remove or impinge upon any such habitat.

UK Priority Species

- 4.1.5 The development proposals are of such a scale that impacting Priority Species on any more than a site level is considered highly unlikely.

4.2 Field Survey

- 4.2.1 The following habitats and features were recorded within the development site and the extended survey area. The general site character has been described along with a brief description of the habitat's physical characteristics. For reference see *Figure No. 1 – Site Habitat Plan; Table No. 1 – Target Notes; Table No. 2 – Species List; and Appendix No. 1 – Site Photographs.*

- 4.2.2 Habitats within the development site area include:

- *Improved Grassland (Amenity);*
- *Hard standing;*
- *Building;*
- *Coniferous Tree lines;*
- *Scattered Coniferous Trees.*

Site Description (Refer to Appendix No. 01 – Site Photographs)

- 4.2.3 The site is comprised of a small, simple mosaic of common, widespread habitat. The habitat category occupying the largest section of the site area is amenity grassland at approximately 60.00 per cent.
- 4.2.4 The amenity grassland was short and well-maintained being dominated by perennial rye-grass *Lolium perenne* with notable contributions from daisy *Bellis perennis*, white clover *Trifolium repens* and creeping buttercup *Ranunculus repens*.

- 4.2.5 The building and hard standing occupy just less than 40.00 per cent of the site combined with three of the four borders demarked by mature coniferous tree lines. The building is comprised of a single storey with a flat roof that exhibited '*negligible*' bat roost potential. The hard standing was used as a car park and no ecological constraints were identified within this section of the site.
- 4.2.6 The areas of the site comprised of amenity grassland, building and hard standing contain very limited ecological potential (*Refer to Photographs No. 01-05; Appendix No. 1 – Site Photographs*).
- 4.2.7 The mature, coniferous tree lines however possess potential to support breeding birds with territorial behaviour observed from male robins within the western red cedar tree line at the north of the site.

5.0 EVALUATION

- 5.1 The Preliminary Ecological Appraisal survey has identified four types of habitat within the site: 1) Amenity Grassland; 2) Hard standing; 3) Building; and 4) Mature, Linear, Coniferous Tree lines. The mosaic of habitat represented within the site boundary has been assessed to possess '*negligible*' ecological value. The site has been divided in to two sections which are separated by the existing hard standing track way however neither differ markedly in character. The only potential ecological constraint that has been identified has been the potential for breeding birds within the mature, coniferous tree lines located at *TN01, TN02 & TN03; Figure No. 1 – Site Habitat Plan*.
- 5.2 The vegetated areas of the site had a uniform, artificial character with the amenity grassland being dominated by perennial rye-grass and the tree lines being dominated by western red-cedar. These features had clearly been installed for the ornamental / landscape character that they imparted with nothing present to indicate ecological enhancement. The amenity grassland was intensively managed and appeared to be regularly mown which curtailed the natural development of the grassland community. The floral community within the sward was highly depauperate limiting any kind of knock-on value for taxa such as pollinators. In fact, the entire vegetative species list for this area was comprised of around 12 no. flowering plants; the vegetative biomass was however dominated by grasses.

- 5.3 The mature, coniferous tree lines that demark three of the four borders of the site offer more in terms of ecological potential however these too were somewhat homogenous. These features had clearly been artificially installed due to the regular, linear format in which they had grown. The conifers were comprised of western red-cedar and Lawson's Cypress with few other species represented within the sward. These features have been identified as potential sites for bird nests as the dense canopy provides ample space for taxa such as passerines to build nests. In fact, territorial behaviour was observed by robin with two males singing then confronting each other within the northern tree line. It is recommended to retain the tree lines with the design of the project however if this is not possible, vegetation clearance should take place outside of the bird breeding season (*March-August inclusive*).
- 5.4 The building on-site provides very limited bat roost potential and it is considered highly unlikely that bats roost within the premises. In addition, the potential for birds to nest within the building is also believed to be '*negligible*' however the roof could not be observed. A flat roof can provide an optimal nesting location for multiple species of bird so this should be checked at the earliest possible convenience. To bypass any potential ecological constraint, it is advised to undertake the demolition of the office building outside of the bird breeding season (*March to August inclusive*).
- 5.5 Generally speaking however the site appeared to be relatively poor in terms of ecology and protected species. The ecological value of the site was perhaps reduced further by the relatively unsympathetic, artificial environment of the local industrial landscape. No follow-up protected species surveys have been recommended as part of this planning application. The only potential ecological constraint is associated with the nesting potential for breeding birds, and the timing of vegetation clearance.

6.0 HABITAT ENHANCEMENTS

6.1 The design of the proposed development could consider enhancements for the benefit of wildlife in line with the *National Planning Policy Framework* and *Local Planning Policy*. Suggestions for ecological enhancement are listed for information purposes only at this stage and should not be considered mandatory. It should be noted however that the potential exists for the development to have a positive effect on biodiversity, assuming that a well-considered ecological avoidance / mitigation / compensation / enhancement strategy is formulated;

- *The use of native tree and shrub species within the soft landscape proposals; suitable species may include common hazel (Corylus avellana); pedunculate oak (Quercus robur); hornbeam (Carpinus betulus); and downy birch (Betula pubescens);*
- *The use of flowering shrubs as listed within the RHS Perfect for Pollinators plant list to provide year-round interest for invertebrates;*
- *The creation of a mosaic of habitats such as scattered trees; dense scrub; and wildflower grasslands; with consideration given to the location of relevant habitats to ensure habitat connectivity between habitats and the surrounding landscape;*
- *Seeding with native wildflower species to create wildflower meadows within the areas of open space / habitat creation areas;*
- *The use of green walls/roof across the site to provide additional habitat;*
- *Retention and strengthening of the northern site boundary vegetation with native species;*
- *Provision of nesting boxes for a variety of bird species, especially starlings and sparrows;*
- *Provision of bat boxes within the existing trees to the northern and eastern boundary tree line;*
- *Provision of invertebrate habitat in the form of log piles to provide a foraging resource for bats and birds;*
- *Provision of hedgehog houses to the scrub line within the northern and eastern boundary.*

Table No. 02 – Species Lists – Preliminary Ecological Appraisal Survey
Pollards Nursery, Lake Lane, Barnham

Common Name	Scientific Name	DAFOR
Western Red Cedar	<i>Thuja plicata</i>	LD
Perennial Rye-Grass	<i>Lolium perenne</i>	D
Daisy	<i>Bellis perennis</i>	A
Dove's Foot Crane's Bill	<i>Geranium molle</i>	F
White Clover	<i>Trifolium repens</i>	O
Ragwort	<i>Senecio jacobaea</i>	R
Daffodil	<i>Narcissus pseudonarcissus</i>	R
Broad-Leaved Willowherb	<i>Epilobium montanum</i>	R
Selfheal	<i>Prunella vulgaris</i>	R
Common Nettle	<i>Urtica dioica</i>	LA
Creeping Buttercup	<i>Ranunculus repens</i>	LA
Spear Thistle	<i>Cirsium vulgare</i>	LA
Cleavers	<i>Galium aparine</i>	LA
Ivy	<i>Hedera helix</i>	LD
Red Fescue	<i>Festuca rubra</i>	LF

DAFOR SCALE

D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare; L – Locally

Table No. 1 – Target Notes (TN) for Preliminary Ecological Appraisal (PEA) at Pollards Nursery, Lake Lane, Barnham

Target Note	Description	Protected Species	Potential	Photo No.
TN01	Continuous coniferous tree line along the northern edge of the proposed development site. Robins observed exhibiting territorial behaviour – chasing in response to singing.	Breeding Birds	<i>'High'</i>	06
TN02	Continuous coniferous tree line along the western edge of the proposed development site.	Breeding Birds	<i>'High'</i>	07
TN03	Continuous coniferous tree line along the southern edge of the proposed development site.	Breeding Birds	<i>'High'</i>	08

Appendix No. 01 – Preliminary Ecological Appraisal – Site Photographs

APPENDIX NO. 01 - SITE PHOTOGRAPHS



Photograph No. 07 - Linear tree features located at TN01. Breeding birds are a potential ecological constraint to vegetation clearance.



Photograph No. 08 - Linear tree features located at TN01. Breeding birds are a potential ecological constraint to vegetation clearance.

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APPENDIX NO. 01 - SITE PHOTOGRAPHS



Photograph No. 05 - Southern sector of the proposed development site. The area is dominated by hard standing, amenity grasland and an existing building that possesses '*negligible*' bat roost potential.



Photograph No. 06 - Linear tree features located at TN01. Robins were observed exhibiting territorial behaviour at this location. Breeding birds are a potential ecological constraint to vegetation clearance.

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APPENDIX NO. 01 - SITE PHOTOGRAPHS



Photograph No. 03 - Southern sector of the proposed development site. The area is dominated by hard standing, amenity grasland and an existing building that possesses '*negligible*' bat roost potential.



Photograph No. 04 - Southern sector of the proposed development site. The area is dominated by hard standing, amenity grasland and an existing building that possesses '*negligible*' bat roost potential.

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APPENDIX NO. 01 - SITE PHOTOGRAPHS



Photograph No. 01 - Northern sector of the proposed development site. The area is dominated by amenity grassland with continuous, linear coniferous trees.



Photograph No. 02 - Southern sector of the proposed development site. The area is dominated by amenity grassland and an existing building that possesses '*negligible*' bat roost potential.

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